Computer games as a motivating teaching medium in teaching English to primary schoolchildren

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Abstract

The research considers the efficiency of using computer games in teaching the English language to primary schoolchildren. The aim of the study was to reveal that the reasonable use of computer games in English lessons has a motivating force which results in students' developing linguistic competences, because students gain all-round experience through language skills and dynamic practical activity. The findings of the research testify that foreign language teaching including elements of computer technology has a motivational capacity for the assimilation of knowledge and results in a better mastering the language simultaneously allowing to tackle other educational tasks: to accelerate the process of assimilation of theoretical material, to increase the volume of completed tasks, the cognitive activity of students and to develop their creativity. The timeliness of the research lies in the fact that the spread of the coronavirus infection COVID-19 and quarantine restrictions have created the need for expanded use of computer technology making teachers adapt to new, rapidly changing environment.

Keywords: computer games, teaching strategies, primary school learners, interactive learning environment, Internet technology.

1. Introduction

In the era of world computerization, traditional teaching methods and pedagogy do not

always have time to adapt to the new conditions created by technological progress. This, in turn, significantly reduces the effectiveness of the training itself, since innovations from the world of information technology have radically changed the very way of perception of information by a modern person. The fact that at the moment the problem of the need for computer technologies in teaching methodology is widely recognized and, moreover, they are being actively introduced, endows the use of computer games in teaching with one of the most relevant directions in modern pedagogy. The general tendency towards individualization of teaching in modern pedagogy contributes to the importance of this topic, since computer games, among their many advantages, make the learning process itself a game. Information technologies today are an integral element of teaching in all subject areas (Rakhimova & Mukhamadiarova, 2020).

Game technologies can be used by a teacher in primary education (for example, computer games from the Uchi.ru website), depending on the goals and objectives of the lesson, which provides many advantages in using a computer game. The activity of an English teacher every year becomes more and more diverse and regulated. The work of the teacher reflects both the modern needs of the state, the tendencies of society and the general development of a particular region of the country.

Primary school age provides great opportunities for the cognition of the world around, including by means of the English language. A fertile ground for this is cognitive activity, which is realized in games that fully meet the age characteristics of children of primary school age. A game is an activity in which a child first emotionally and then intellectually masters the entire system of human relations. They have a complex effect on the intellectual, emotional, volitional, communicative and other aspects of the growing personality, "enable the teacher to diversify and brighten the program, to depart from the normal course of lessons" (Davletbaeva et al., 2016).

The hypothesis of this study is the assumption that the use of educational games is an effective tool for teaching foreign language communication and stimulating the motivational sphere of primary schoolchildren, provided that the educational computer game corresponds to the purpose of the lesson and the place in its structure and is appropriate for the age, personal experience, interests of the children and the level of English language proficiency. Motivation generated by computer games should be presented in the educational process along with communicative, cognitive and aesthetic motivation. A computer game stimulates intellectual readiness: an elementary mastery of the mechanisms of thinking – comparison, synthesis, analysis, generalization; the ability to switch from one found solution to the search for another; development of creative potential. Using computer games in educational process enables not only to improve, but also to acquire new knowledge, because the desire to win makes students think, remember the studied material and memorize a new one.

2. Methods

In the course of the research, we used the following methods: analysis of scientific and methodological literature on the research problem, scientific observation, descriptive and analytical; analysis of the literature, which highlights issues related to the topic.

The theoretical basis of the study was scientific works in which gaming technologies and their application are viewed as a means of teaching a foreign language possessing a high motivational force and educational potential (Prensky, 2002; Seay, 1997; Pillay, 2002). M. Prensky believes that the best way out of the predicament situation with a lack of motivation

to learn is the introduction into education of gaming technologies. Most authors who investigated the effects of using computer games in teaching children on confidence, motivation, and ability agree that computer games used with educational aims allows students not only to acquire new knowledge, social, but also consciously work with them when creating new products. A positive influence of the games on the learning of foreign languages has been described in surveys carried out by Carrier, 1985; Chen, 2005. Yolageldili and Arikan (2011) studied the effectiveness of using games in teaching grammar to young learners.

The learner-centered approach "demonstrated the use of ongoing inquiry into the effectiveness and appropriateness of the course topics, with resulting information incorporated into the course immediately" (Solnyshkina et al., 2016; Aransi, 2022; Asika, 2021).

To prove the hypothesis, a three-stage pedagogical experiment has been carried out. The objectives of the experiment were to identify the current level of motivation and linguistic competence of the 4th grade students before the experiment, to run a diagnostic of the level of motivation and language competence obtained as a result of the introduction of computer games into the learning environment.

Research population consisted of 30 3d grade students of a secondary school, the city of Kazan. The teachers took into account psychological compatibility of students to improve the efficiency of the experiment. The participants were divided into 2 groups - the control group and the experimental one.

The experiment consisted of three stages - the preparatory stage, the formative stage, the control stage.

At the preparatory stage of the research to get an idea of the level of motivation and linguistic competence (the initial level of proficiency in speaking English, the level of formation of lexical, grammatical and pronunciation skills) of students of the control and experimental groups, pre-testing was held including such techniques as testing, conversation, observation, questionnaires. The mean scores of both groups were found to be almost identical, which indicated that the groups are almost equivalent with regard to the previous level of motivation, knowledge and competences.

At the formative stage during the study of the unit "My day" the students were introduced to a new topic "School subjects". They studied new vocabulary (the names of school subjects, numbers), practiced the use of the verb 'to be'.

The students in the control group did some traditional exercises in the textbook "Spotlight"; the students in the experimental group were suggested some educational computer games on the educational platform Uchi.ru, thus having blended learning combining traditional training with the computer one.

At the control phase of the research the post test was held to check the participants' progress in developing the above-mentioned competences.

3. Results and Discussion

The research has revealed that computer games is a powerful means of forming stable positive motivation in students in mastering the English language, which acquires a particularly important role in the development of independence and activity in learning activities. The

powerful educational and motivational potential of computer games can be observed in mastering all aspects of the language: vocabulary, grammar, pronunciation and intonation side of speech, it should be noted that "it is necessary to do a lot of practical exercises to learn and use modern vocabulary of a foreign language" (Varlamova et al., 2016).

In the course of studying the problem of using computer game activity in teaching English at primary school age, its positive influence on the assimilation, development and revision of educational material, as well as the need to take into account the age of children, their interests, the correct approach to involve each child in the game were identified.

At the early stage of teaching children a foreign language, one of the main tasks of a teacher is to make the subject interesting and motivate for the study. At a young age, children are very emotional and mobile, their attention is distinguished by involuntariness and instability. It is important to take into account the psychological characteristics of children of this age in the learning process.

ICT-based lessons are especially relevant in teaching primary schoolchildren who have visual-figurative thinking, so it is very important to encourage their learning, using as much high-quality illustrative material as possible, involving not only vision, but also hearing, emotions, and imagination in the process of perceiving new things.

The statistical analysis of the results of the control and experimental groups reveals the effectiveness of using computer games in the process of teaching English. The results of the research show that using computer games affected the development of all the competences of students to a greater or lesser degree. The analysis shows that in the framework of experimental learning the students of the experimental group had significant improvement in developing lexical competence (18%), communicative abilities (14%), grammatical competence (14%), phonetic competence (12%). There is insignificant difference (2-4%) in the gain scores of the control group in all the aforementioned aspects. Besides the activity of students at different stages of the lesson in the process of mastering foreign language communication has significantly increased, a regular use of dynamic pauses helped to increase interest in what was happening in the lesson and relieve fatigue, the level of motivation of students to learn English has increased.

The efficiency of using computer games in teaching English to primary schoolchildren can be attributed to the compliance with individual psychological characteristics of primary school students (voluntary attention of a younger student requires the so-called close motivation, involuntary attention being better developed, thus everything new, unexpected, bright, interesting naturally attracts the attention of students, without any effort on their part).

Using computer games contributes to the implementation of important methodological tasks, such as creating the psychological readiness of children for verbal communication, ensuring the natural need for them to revise language material a good many times, "the role of a teacher in this case is not passive, but they need the ability to show possible ways to achieve goals, to direct students' attempts for a more effective solution of the challenges (Shemshurenko et al., 2019) and creating "a decent comfortable climate for learning" (Zolkin et al., 2020).

4. Conclusion

The experiment verified the hypothesis and confirmed the need to integrate computer

games in teaching a foreign language to primary schoolchildren. Computer games in teaching a foreign language to primary schoolchildren promote the all-round development of the child, including high-quality language skills at all levels, creativity, preparation for communication in a real communicative environment.

The use of computer games as a teaching aid increases the interest of primary school students in a foreign language as a subject. The colourful design of programs, animation activates the attention of children, develops associative thinking, skilfully selected tasks create a positive psychological atmosphere of cooperation. Computer games in teaching a foreign language have a beneficial effect on the creative development of children, contribute to the improvement and activation of language and communication skills, stimulates cognitive activity, as a result of which a communication base for further study of a foreign language is formed.

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